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Cultivatingbigideas, June 2007

University of Arkansas, Fayetteville. Technology Development Foundation

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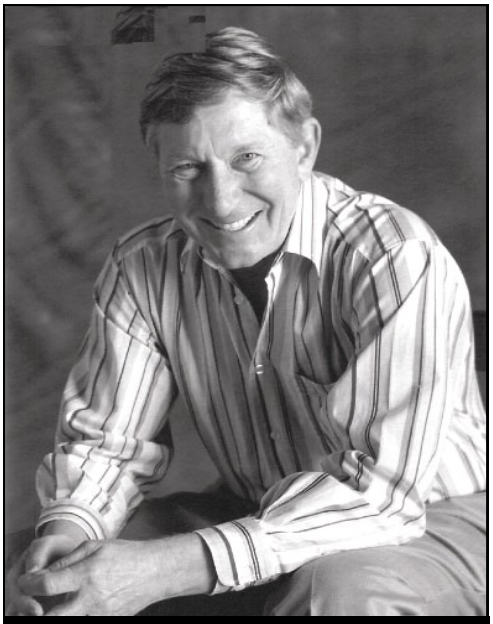
the university of arkansas technology development foundation

Quarterly Newsletter

June 2007 Issue

Remembering a Friend, Honoring a Legend



John Lewis
1939-2007

Our dear friend, John Lewis, passed away on Friday, June 1st in Branson, MO. He was 67. He was a 1957 graduate of Fayetteville High School. He served on the boards of the Fayetteville Public Schools, Beaver Water District, Winthrop Rockefeller Foundation, the UofA's Fulbright College, SWEPCO, Hass Hall Academy and the Washington Regional Medical Center. John attended the University of Arkansas and served in the U. S. Marines before beginning his financial career. He returned to Fayetteville in 1969 as vice president of First National Bank of Fayetteville. When John left First National Bank in 1987, he founded the Bank of Fayetteville. He retired as bank president in July 2004. John then helped form the cornerstone of the Northwest Arkansas Council. John was also a dedicated volunteer and a long-time supporter of the University of Arkansas. He served as chairman of the Women's Athletics Committee during the Campaign for the Twenty-First Century.

John founded teamlewis.biz, a consulting company, after he retired from banking. His company serves as a business accelerator in the Arkansas Research and Technology Park in Fayetteville. He also helped found and was President of the Northwest Arkansas Museum Foundation to facilitate the research and formation of a Science and Technology Center in the region. Both entities are thriving and moving forward to bring John's projects and visions into reality.

John was very active in the formation of the Arkansas Research & Technology Park. He was passionate about knowledge, technology and innovation. As a man of vision, he understood the transforming quality of knowledge and discovery and its ability to benefit society and provide a stable future for the next generation of Arkansas. The University of Arkansas Technology Development Foundation was privileged to benefit from John's service on its founding board of directors. His vision and enduring spirit will continue to serve as an inspiration to the Foundation and its community of affiliates at the Arkansas Research and Technology Park.

Instruments in Space

FAYETTEVILLE, Ark. - University of Arkansas researchers, in partnership with a local company will develop a probe for future planetary rovers that will help scientists study the history of the solar system by examining the properties of layers of material beneath the surface of the moon, Mars, comets and other planetary bodies.

Scientists at the Arkansas Center for Space and Planetary Sciences and officials of Space Photonics Inc. received a $403,000 grant from the Planetary Instrumentation Development branch of NASA, which will allow them to create an optical probe that can be used to determine the composition and amount of ice beneath the surface of a planetary body.

"Our intention is to deliver to NASA hardware that is ready for a mission," said Rick Ulrich, professor of chemical engineering and principal investigator for the project. This particular instrument will help researchers answer questions that have been around since planetary bodies were discovered.

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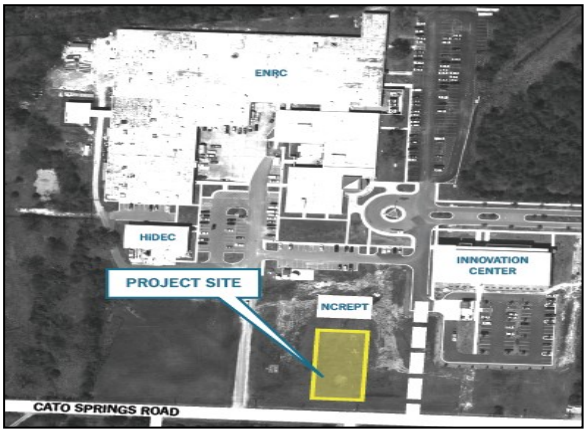
RFP Update

The Technology Development Foundation is working through the process to select a private developer to construct the next building here in the park. See map below for proposed site location. Continued on Page 2



Picnic at the Park

On May 18th, the Technology Development Foundation hosted it's first annual Picnic at the Park. The picnic was designed to bring the park affiliates together for community building and relaxation.

A tent was erected on the lawn east of the Innovation Center for shade. Tables and chairs were brought in for dining comfort and the red and white checked table cloths added that extra picnic touch. Participants enjoyed an Italian cuisine, salad and dessert. Employees played volley ball, the kids played football and a few even threw the horseshoes around. The weather cooperated beautifully.

It was a great day for a picnic! Thanks to all who attended.








RFP Update Con't.

As most are aware, the UATDF issued the RFQ in late December and received six quality responses . A selection committee comprised of UATDF board members and staff, University administrators/staff and outside consultants and advisors reviewed and recommended four developer teams to be considered to receive the Request for Proposals. The four chosen to receive the RFP represent a wide mix of characteristics. They range from smaller, local organizations, to large nationwide developers. They all possess strong qualities that the committee looked for when deciding who should receive the opportunity to quote the project. All four are very qualified and talented groups.

The deadline for submission of the RFP was June 15th. The responses are being reviewed and a decision will be made over the next month. Once a developer is chosen, the committee will work with the developer to decide the exact size, function and cost of the project. It is the committee's goal to provide a structure that will accommodate new and existing companies from within the park that are experiencing a shortage in wet/dry lab, office and meeting space. Ideas and recommendations are encouraged.

Gone But Not Forgotten

Scott Hancock

This quarter's issue brings focus to another friend who is gone, but definitely not forgotten. Scott Hancock, our former Technology License Officer took a new position, in May, with the University of Binghamton. A reception was held in early May recognizing Scott's accomplishments in his job with his friends and co-workers bidding him a nice farewell. Scott worked with University of Arkansas professors, graduate students and companies here in the park on licensing and patent process to help take their companies to the next level. Thanks for your hard work and dedication over the past years. You will be missed.

Instruments in Space Con't.

"When we look out at these places, we only see the surface, and we wish we could see what lies beneath," Ulrich said. "Those layers contain the timeline of the solar system's history."

To examine the layers, the researchers will build an Optical Probe for Regolith Analysis, an instrument they refer to as OPRA.

The instrument will operate at the base of a rover, driving a spike into the soil. The spike, which may be anywhere from one to four feet long, will contain several dozen quartz windows along its length with fiber optic cables connected to an infrared spectrometer back in the rover, which will provide spectral analysis as a function of depth. Because all the electronics will be isolated in the rover, there will be no heat source to alter the possibly frigid interior of the planetary body.

"OPRA will analyze these layers without disturbing them," Ulrich said. "We'll get composition versus depth at every layer." The infrared spectrum will provide information on the kind of rock, its chemical composition, the amount of water in the rock and how the molecules are arranged. By looking at the compositions of different layers, the researchers can peel back time and look at the geologic history of the planetary body.

"NASA wants simple, robust and effective hardware, and OPRA is all three of these," Ulrich said. The public-private partnership with Space Photonics strengthens the university's ability to attract major instrumentation funding.

Space Photonics has served as a research and development company for the Department of Defense and for NASA and has reported recent product sales to Honeywell, Lockheed-Martin and Orbital Sciences.

"The relationship with the University of Arkansas has been key for us," said Matthew Leftwich, a senior development specialist and lead engineer at Space Photonics, a University-based start-up company. Space Photonics will develop the fiber optic cable interface that will carry the infrared light signals to and from the alien soil, through the sub-surface probe. Infrared light sent to and reflected back from the alien soil into the probe's fiber-coupled interconnect system will deliver the data to the Fourier -transform infrared spectrometer for analysis.

SPI will be collaborating with the OPRA design team to determine the optimal methods of fiber-to-quartz lens coupling and fiber routing throughout the OPRA probe," he said.

"We envision that this will work on Mars, the Moon, comets and asteroids," Ulrich said. At the end of the project, the probe will be ready for NASA to consider for a mission, and it could be in space in 4 to 6 years.

Ulrich credits the work of the W.M. Keck Laboratory for Space Simulation and the multidisciplinary nature of the team for the success of the proposal - the researchers have expertise in materials science, geology, engineering, chemical engineering, fiber optics and space science. The team includes Ulrich; Larry Roe, professor of mechanical engineering; space center director Derek Sears, who holds the W.M. Keck Professor of Space and Planetary Sciences; Vincent Chevrier, a postdoctoral fellow in space and planetary sciences; and Leftwich with Space Photonics.

For information, please see http://spacecenter.uark.edu.

Space Photonics develops, markets and sells optical networking systems and components specifically designed to address the reliability and bandwidth limitations of military and commercial aircraft and spacecraft. For information, please see http://www.spacephotonics.com.

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Accelerate Arkansas Advocates a Different Approach

The month of April proved to be a good one for Accelerate Arkansas' efforts on a recent list of initiatives that were outlined in their 2007 Legislative Agenda. Every component of the legislative agenda proposed by Accelerate Arkansas was accepted by the legislature. The General Assembly also passed additional TBED legislation during the recent session, including authorization for research parks, broadband access, and R&D tax credits. The package rounds out the complement of the programs already underway in the state through the Arkansas Science & Technology Authority.

In part, because of Accelerate Arkansas's agenda passing, Arkansas will soon possess one of the nation's most comprehensive portfolios of state-supported TBED initiatives. The result of this legislation passing could be a public injection of up to $140 million for Arkansas's TBED community over the next biennium.

Many of the new measures will be supported by an anticipated surplus in state revenues - projected to be around $917M when the fiscal year ends on June 30. The legislature decided the funds will be distributed between public school facilities ($456M), highway improvements ($80M) and other legislature-initiated projects, resulting in about $196M to be used for programs within the executive branch.

And what does that mean for the companies in the Park? Gov. Beebe has authorization to use approximately 70 percent of the $196M for TBED initiatives, including but not limited to:

- $40M for the Arkansas Risk Capital Matching Fund, to provide financing to knowledge-based companies in early stages of development;

- $33.5M for research grants administered by the Arkansas Science and Technology Authority, including $12M for research matching funds, $12M for centers for applied technology, and $7M for bioscience research grants;

- $3M to create Innovate Arkansas, a new nonprofit organization that will contract with state government to support the needs of start-up companies, being modeled on the i2E (innovation to enterprise) Inc. program in Oklahoma;

- $20M for the Seed Capital Investment Program, providing up to $500K in capitalization for tech companies in Arkansas;

- $500,000M to establish the Arkansas Research Alliance, a not-for-profit corporation modeled after the Georgia Research Alliance, designed to identify and encourage job-creating scientific research and recommend strategic investments at universities in Arkansas;

- $200K to create and fund the Task Force for the 21st Century, collecting 17 individuals to study economic development and global competitiveness in Arkansas.

The new legislation authorizes maximum spending levels for a variety of specific TBED activities to be undertaken during the 2007-2009 biennial budget cycle. Gov. Beebe is given the discretion to spend less than the maximum levels, providing a flexibility to reallocate resources that is not often available to state executive branches.

Accelerate Arkansas's goal is to raise the state's average wage to the national average by 2020, a goal to be advanced by investments in research, entrepreneurship, risk capital, and Arkansas' science and engineering workforce. The group is an independent statewide coalition organized under the Arkansas Economic Acceleration Foundation.

The Technology Development Foundation is pleased with the results of the legislation and look forward to working with Gov. Beebe and his staff to help fund knowledge-based start up companies here in the research park.

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